

***FSA Integration Partner***  
**United States Department of Education**  
**Federal Student Aid**



# **ITA Performance Architecture Transition and Maintenance Goals Report I**

***Task Order #118***  
**Deliverable # 118.5.1**

**Version 1.1**

March 8, 2004



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# 1 Introduction

## 1.1 ITA Overview

The Integrated Technical Architecture (ITA) provides a standardized, reusable infrastructure for enabling business capabilities within the FSA application community. The long-term vision of the ITA is to provide an integrated, enterprise-wide technical architecture that will enable FSA to reduce the number of custom-built applications that are difficult and costly to update and maintain.

## 1.2 Executive Summary

The ITA Performance Architecture Transition and Maintenance Goals Report I (February 13, 2004) documents the architecture maintenance services provided by the ITA team between January 15, 2004 and February 13, 2004. These maintenance services were provided to FSA applications using ITA product software and Reusable Common Services hosted in the ITA production, development, testing, and staging environments. The following is a brief overview of the contents of each section of this report:

### Section 1 Introduction:

- Provides an overview of the contents of this report.
- Describes FSA applications maintained in the ITA environments and identifies the ITA products being maintained.

### Section 2 ITA Environments:

- Describes the ITA environments (production, development, testing, staging) and includes detailed diagrams of the environments.

### Section 3 ITA Product Software:

- Includes a table of the servers and applications that incorporate the ITA product software.
- Provides a summary of ITA product software.

### Section 4 Infrastructure Updates and Enhancements:

- Provides an overview of the updates and enhancements section of this document.
- Summarizes the updates and enhancements that were performed between January 15, 2004 and February 13, 2004

### Section 5 Reusable Common Services (RCSs)

- Summarizes the changes to any RCS's hosted in the ITA architecture.

### Section 6 Maintenance Services

- Summarizes ITA availability for maintenance services.
- Provides a brief summary of pages and calls, and includes the total number of incidents.



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## **Section 7 Performance Tests**

- Summarizes and provides status of the performance tests performed by ITA between January 15, 2004 and February 13, 2004.

## **Section 8 Transition**

- Summarizes and provides status of the transition effort performed by the current ITA team to the new ITA team between January 15, 2004 and February 13, 2004

## **1.3 FSA Applications**

This section provides an overview of FSA applications hosted in the ITA environments. The ITA team provides the following maintenance services to these applications:

- Environment maintenance.
- Upgrades and patches as needed.
- Change request processing.

### **1.3.1 Credit Management Data Mart (CM Data Mart)**

The CM Data Mart initiative provides reporting & data warehousing through Informatica.

CM Data Mart receives ITA support for the Informatica product.

### **1.3.2 eCampus Based**

The intent of the project is to modernize the existing CB application architecture; migrating from the current platform (COBOL, IBM Mainframe, VSAM data store) to a relational database platform (Oracle), developing a web-based user interface (WebSphere), along with additional software functionality enhancements. This modernized solution is named eCB (electronic Campus Based). The main objective of the modernization effort is to offer institutions and CB staff an integrated and intuitive solution that increases access to information and self-service capabilities supporting FSA's strategic goals.

The eCampus Based application receives support for WebSphere Application Server, IBM HTTP Server, and Network Dispatcher.

### **1.3.3 EDEExpress Basics**

The EDEExpress Basics is an online CBT (Computer Based Training) course for FSA customers. A portion of the training returns user feedback to a servlet within the ITA environment

The EDEExpress Basics application receives support for WebSphere Application Server, IBM HTTP Server, and Network Dispatcher.

### **1.3.4 eZ-Audit**

eZ-Audit is an online submission tool for financial statements and compliance audits for schools with Title IV eligibility. Once the submissions are received, eZ-Audit also provides case tools for FSA to track and screen submission.



ITA provides WebSphere Application Server and IBM HTTP Server product support to the Ez-Audit application.

### **1.3.5 Free Application for Federal Student Aid on the Web (FAFSA on the Web)**

The FAFSA on the Web application is used by college students and schools to submit financial aid applications to FSA via the Internet.

ITA provides FAFSA on the Web with support for Autonomy, WebSphere Application Server, IBM HTTP Server, and Network Dispatcher.

### **1.3.6 FAFSA on the Web Demo Site**

The FAFSA on the Web application is used by college students and schools to submit financial aid applications to FSA via the Internet. The demo site provides an interface to train and showcase the functionality of the full FAFSA production site listed in 1.3.5.

ITA provides FAFSA on the Web Demo Site with support for Autonomy, WebSphere Application Server, IBM HTTP Server, and Network Dispatcher.

### **1.3.7 Financial Partners Data Mart (FP Data Mart)**

The FP Data Mart initiative provides initial Risk Management, Customer Relationship Management, Compliance Management, and Portfolio Management functionality related to the thirty-six Guaranty Agencies and the approximately four thousand lenders.

FP Data Mart receives ITA support for the Informatica product.

### **1.3.8 FSA Computer-Based Orientation to Aid Concepts and How-to's (FSA COACH)**

FSA COACH is a comprehensive introductory course on school requirements for administering post-secondary student financial aid programs.

ITA provides Network Dispatcher and IBM HTTP Server product support to the FSA COACH application.

### **1.3.9 FSANet**

FSANet is an internal portal for FSA employees. It provides general information about FSA, FSA Channels, and the Department of Education. The portal also houses information about FSA standards.

ITA provides Autonomy, Interwoven, WebSphere Application Server, IBM HTTP Server, and Network Dispatcher product support to the FSANet Application.

### **1.3.10 Information for Financial Aid Professionals (IFAP)**

The IFAP website is an electronic library for financial aid professionals containing publications, regulations, and guidance regarding the administration of Title IV Federal Student Aid Programs.



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IFAP receives ITA support for Autonomy, Interwoven, WebSphere Application Server, IBM HTTP Server, and Network Dispatcher.

#### **1.3.11 Lender Reporting System (LaRS)**

LaRS is part of the Financial Management System phase IV project. LaRS is an Oracle Financials based application that improves the reliability of lender billing data through a redesigned loan payment process.

ITA provides Network Dispatcher product support to the LaRS application.

#### **1.3.12 Ombudsman Redesign**

The Ombudsman website contains information and resources about FSA Ombudsman. The site contains searchable content and links to quickly retrieve information.

ITA provides Autonomy, Interwoven, WebSphere Application Server, IBM HTTP Server, and Network Dispatcher product support.

#### **1.3.13 PIN Site**

The PIN Site provides authentication for multiple applications within FSA.

ITA provides Autonomy, Interwoven, WebSphere Application Server, IBM HTTP Server, and Network Dispatcher product support.

#### **1.3.14 Program Guidance**

The Program Guidance application provides a central location for resources needed by the Program Development Division within FSA. The application provides documents and profiles to identify relevant information quickly for members of this division.

ITA provides Autonomy, Interwoven, WebSphere Application Server, IBM HTTP Server, and Network Dispatcher product support.

#### **1.3.15 Schools Portal**

The Schools Portal is a homepage for school-specific information with links, headlines, and calendar functions frequented by the schools. The site is customizable and can store bookmarks.

ITA provides Autonomy, Interwoven, WebSphere Application Server, IBM HTTP Server, and Network Dispatcher product support.

#### **1.3.16 Students.gov**

Students.gov provides a categorized directory of links of interest for students searching for government resources.

ITA provides WebSphere Application Server, IBM HTTP Server, and Network Dispatcher product support.



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### 1.3.17 Students & Financial Partners Portal

Portals were developed for the Students and Financial Partners channels to provide a central location for information needed by students and financial partners.

ITA provides Autonomy, Interwoven, WebSphere Application Server, IBM HTTP Server, and Network Dispatcher product support.

### 1.3.18 XML Registry and Repository

The FSA XML Registry and Repository provides a central access point for FSA's XML Core Components, XML Schemas, and supporting documentation. The XML Registry and Repository provides FSA with a common set of enterprise data definitions that can be used to exchange data between FSA's systems. Users can access the Registry and Repository to search, view, upload, and download the XML Core Component definitions and documentation.

ITA provides WebSphere Application Server and IBM HTTP Server product support.

### 1.3.19 Table of FSA Application Release Numbers

The table below presents the release numbers of the FSA applications supported by the ITA team:

Application	Current Release Number
CM Data Mart	-
eCampus Based	3.0
EDEExpress Basics	-
eZ-Audit	1.01.08
FAFSA on the Web	8.0
FAFSA on the Web Demo Site	8.0
FP DataMart	2.0
FSA Coach	1.0
FSANet	2.0
IFAP	2.0
LaRS	4.11
Ombudsman	-
PIN Site	-
Program Guidance	1.0
Schools Portal	2.0
Students.gov	2.0
Students Portal	2.0
Financial Partners Portal	2.0
XML Registry and Repository	1.0

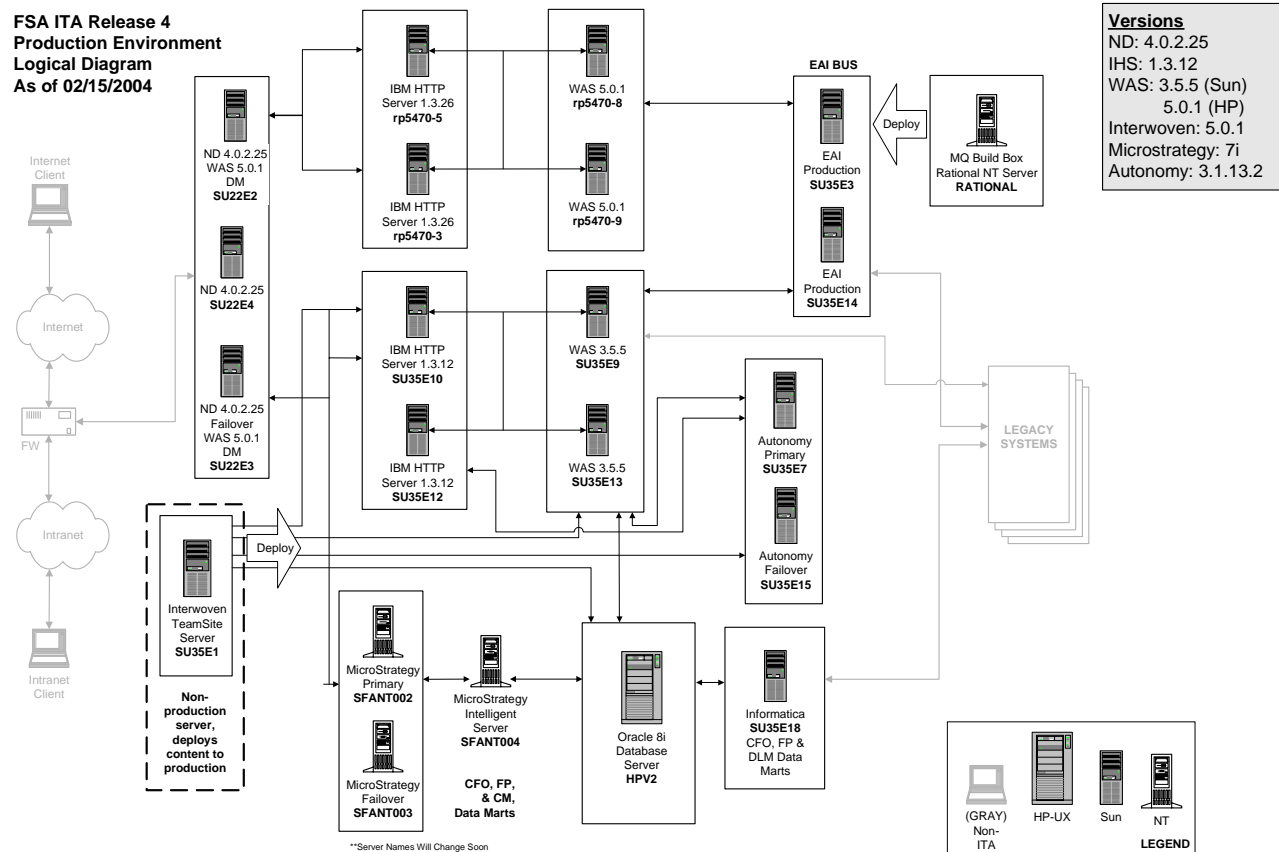


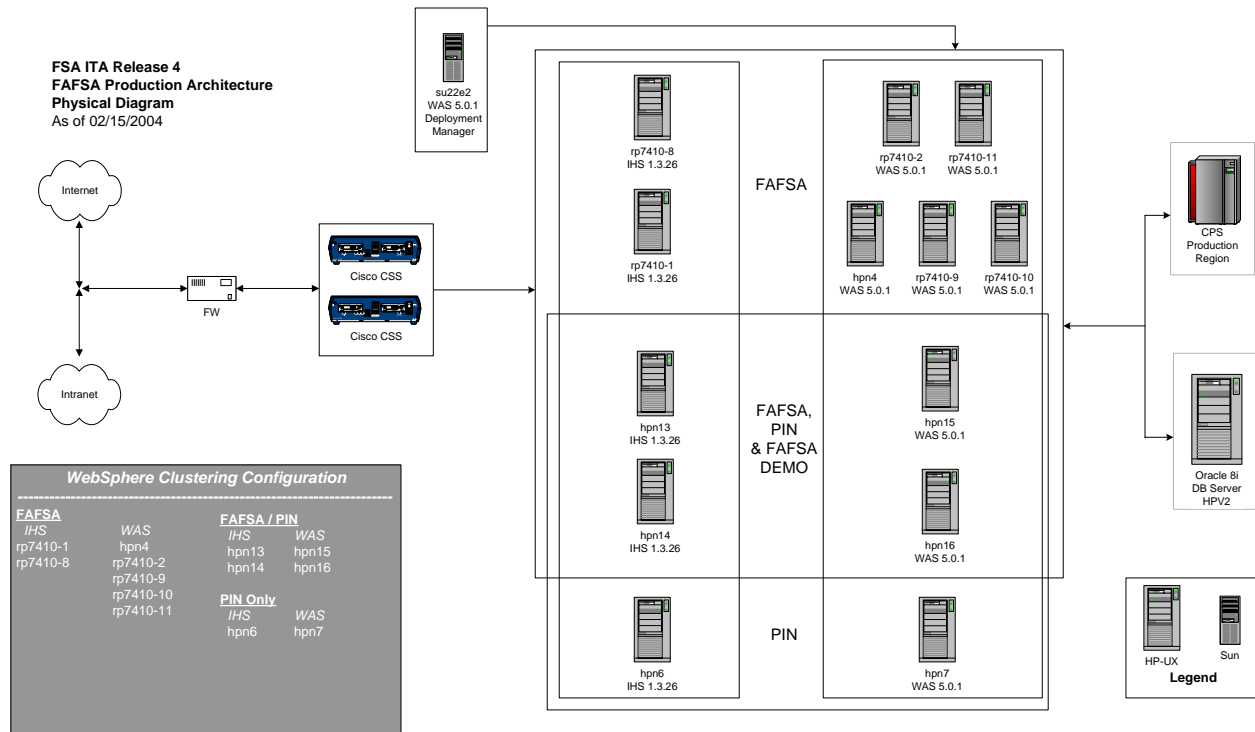


## 2 ITA Environments

### 2.1 Production Environment

The ITA team provides Tier II support in maintaining and monitoring the production environments. Below are the Logical Diagrams of the servers maintained in the ITA Production environments. Additional diagrams can be found in Appendix A.





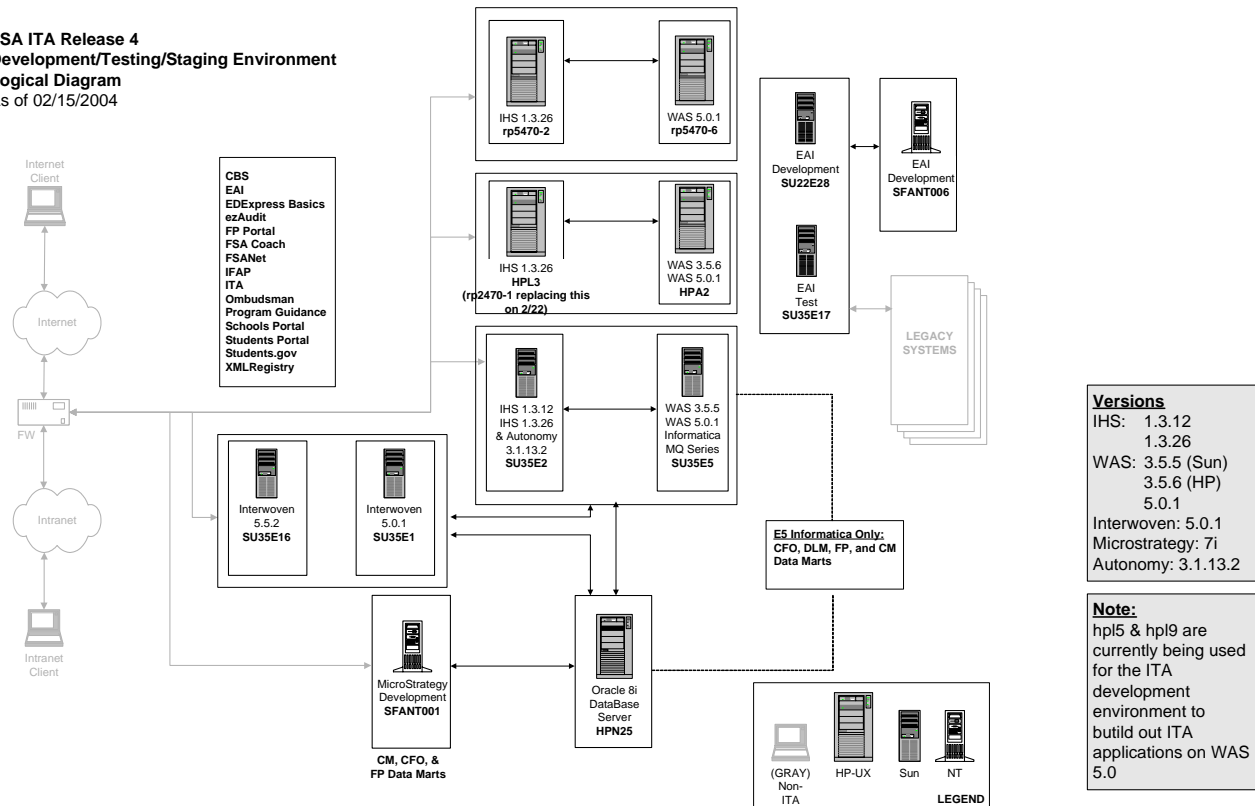
## 2.2 Development/Testing/Staging Environment

The ITA team hosts and maintains the pre-production environments consisting of the development, test, and staging environments. In the development environment, the application teams develop components that will be used in various applications. These components are then tested for functionality in the testing environment. The final area of pre-production, staging, offers the opportunity to prepare the components before their migration to the production environment.

### 2.2.1 Pre-production Environment Diagram

Below is the Logical Diagram of the servers maintained in the ITA pre-production environments. Additional diagrams can be found in Appendix A.

**FSA ITA Release 4**  
**Development/Testing/Staging Environment**  
**Logical Diagram**  
 As of 02/15/2004





### 3 ITA Product Software

Another key objective of ITA Architecture Maintenance Services is to provide product software maintenance. This section provides the details of the ITA product software.

#### 3.1 Table of ITA Production Product Software

The table below presents the version(s) of the software products installed in the ITA production environment:

Software	Server Name	O/S	Env	Current Version	Applications	Post Refresh
IBM HTTP Server (IHS)	SU35E10	Solaris 2.8	Prod	v1.3.12	eCampus Based EDEXpress Basics eZ-Audit FSA Coach FSANet IFAP Ombudsman Program Guidance Schools Portal Students.gov Students Portal FP Portal	RP5470-3
	SU35E12	Solaris 2.8	Prod	v1.3.12	eCampus Based EDEXpress Basics eZ-Audit FSA Coach FSANet IFAP Ombudsman Program Guidance Schools Portal Students.gov Students Portal FP Portal	RP5470-5
	HPN13	HP-UX 11i	Prod	v1.3.26	FAFSA FAFSA Demo Site PIN Site	HPN13
	HPN14	HP-UX 11i	Prod	v1.3.26	FAFSA FAFSA Demo Site PIN Site	HPN14
	HPN6	HP-UX 11i	Prod	v1.3.26	PIN Site	
	rp7410-1	HP-UX 11i	Prod	v1.3.26	FAFSA FAFSA Demo Site	rp7410-1



Software	Server Name	O/S	Env	Current Version	Applications	Post Refresh
WebSphere Application Server (WAS)	SU35E9	Solaris 2.8	Prod	v3.5.5	eCampus Based EDEXpress Basics eZ-Audit FSA Coach FSANet IFAP Ombudsman Program Guidance Schools Portal Students.gov Students Portal FP Portal	RP5470-8
	SU35E13	Solaris 2.8	Prod	v3.5.5	eCampus Based EDEXpress Basics eZ-Audit FSA Coach FSANet IFAP Ombudsman Program Guidance Schools Portal Students.gov Students Portal FP Portal	RP5470-9
	HPN4	HP-UX 11i	Prod	v5.0.1	FAFSA FAFSA Demo Site	HPN4
	HPN7	HP-UX 11i	Prod	v5.0.1	PIN Site	HPN7
	HPN15	HP-UX 11i	Prod	v5.0.1	FAFSA FAFSA Demo Site PIN Site	HPN15
	HPN16	HP-UX 11i	Prod	v5.0.1	FAFSA FAFSA Demo Site PIN Site	HPN16
Autonomy	SU35E7	Solaris 2.8	Prod	v3.1.13.2	FAFSA FSANet IFAP Ombudsman Program Guidance Schools Portal Students Portal FP Portal	n/a



Software	Server Name	O/S	Env	Current Version	Applications	Post Refresh
	SU35E15	Solaris 2.8	Prod	v3.1.13.2	FAFSA FSANet IFAP Ombudsman Program Guidance Schools Portal Students Portal FP Portal	n/a
eNetwork Dispatcher (eND)	SU22E4	Solaris 2.8	Prod	v4.0.2.25	eCampus Based EDEXpress Basics eZ-Audit FSA Coach FSANet IFAP Ombudsman Program Guidance Schools Portal Students.gov Students Portal FP Portal	Cisco CSS
	SU22E3	Solaris 2.8	Prod	v4.0.2.25	eCampus Based EDEXpress Basics eZ-Audit FSA Coach FSANet IFAP Ombudsman Program Guidance Schools Portal Students.gov Students Portal FP Portal	Cisco CSS
Microstrategy	SFANT002 SFANT003 SFANT004	NT 4.0	Prod	7.2.3	CM FP Data Mart eCampus-Based	N/A



Software	Server Name	O/S	Env	Current Version	Applications	Post Refresh
Interwoven	SU35E1	Solaris 2.8	Prod	v5.0.1	eCampus Based EExpress Basics eZ-Audit FSA Coach FSANet IFAP Ombudsman Program Guidance Schools Portal Students.gov Students Portal FP Portal	fsasvsmrd 8
	SU35E16	Solaris 2.8	Prod	V5.5.2	eCampus Based EExpress Basics eZ-Audit FSA Coach FSANet IFAP Ombudsman Program Guidance Schools Portal Students.gov Students Portal FP Portal	fsasvsmrd 9

### 3.2 Table of ITA Pre-Production Product Software

The table below presents details of the product software installed in the ITA pre-production environments.

**Note:** Some of the hardware refresh servers are not currently in use, but have been included in this table to display the refresh work that is taking place.

Software	Server Name	O/S	Env	Current Version	Applications	Post Refresh
IBM HTTP Server (IHS)	HPL3	HP-UX 11i	Dev Test ITA Stage	v1.3.26	FAFSA FAFSA Demo PIN	TBD



Software	Server Name	O/S	Env	Current Version	Applications	Post Refresh
	SU35E2	Sun Solaris 2.8	Dev Test ITA Stage	v1.3.12 v1.3.26	eCampus-Based ED Express Basics Exit Counseling FAFSA Demo FP Portal FSA Coach FSANet IFAP Ombudsman Ombudsman Redesign Program Guidance FSA Coach Students Portal Schools Portal Students.gov	RP5470-2
	RP5470-2	HP-UX 11i	Dev Test ITA Stage	1.3.26	eCampus-Based FP Portal FSA Coach FSANet IFAP Ombudsman Ombudsman Redesign Program Guidance FSA Coach Students Portal Schools Portal Students.gov XML Registry	N/A
	RP7410-2	HP-UX 11i	FAFSA Perf	1.3.26	FAFSA FAFSA Demo PIN	N/A
	RP7410-4	HP-UX 11i	FAFSA Perf	1.3.26	FAFSA FAFSA Demo PIN	N/A
	RP5470-4	HP-UX 11i	ITA Perf	1.3.26	Currently no applications.	N/A
WebSphere Application Server (WAS)	HPA2	HP-UX 11i	Dev Test ITA Stage	3.5.6 5.0.1 (co-existing versions)	FAFSA FAFSA Demo PIN	TBD





Software	Server Name	O/S	Env	Current Version	Applications	Post Refresh
	SU35E5	Sun Solaris 2.8	Dev Test ITA Stage	3.5.5 5.0.1 (co-existing versions)	eCampus-Based ED Express Basics Exit Counseling FAFSA Demo FP Portal FSANet IFAP Ombudsman Redesign Program Guidance FSA Coach Students Portal Schools Portal Students.gov	RP5470-6
	RP5470-6	HP-UX 11i	Dev Test ITA Stage	5.0.1	eCampus-Based FP Portal FSANet Ombudsman Redesign Program Guidance FSA Coach Students Portal Students.gov XML Registry	N/A
	RP7410-3	HP-UX 11i	FAFSA Perf	5.0.1	FAFSA FAFSA Demo PIN	N/A
	HPN8	HP-UX 11i	FAFSA Perf	5.0.1	FAFSA FAFSA Demo PIN	N/A
	RP5470-7	HP-UX 11i	ITA Perf	5.0.1	Currently no applications.	N/A
	SU22E20	Sun Solaris 2.8	FAFSA Perf ITA Perf	5.0.1 (WAS Deployment Manager)	N/A	TBD
	SU22E24	Sun Solaris 2.8	FAFSA Perf ITA Perf	5.0.1 (WAS Deployment Manager)	N/A	TBD
Autonomy	SU35E2	Sun Solaris 2.8	Dev Test ITA Stage	AXE - 4.3.3.34069 Auto Indexer - 2.5.12.111 HTTP Fetch	FAFSA FP Portal FSANet IFAP Ombudsman Program Guidance	RP5470-2



Software	Server Name	O/S	Env	Current Version	Applications	Post Refresh
				- 2.2.4.88	Schools Portal Students Portal	
	RP5470-2	HP-UX 11i	Dev Test ITA Stage	As of 12/15/03, CSC is researching the HP equivalent version.	FAFSA FP Portal FSANet IFAP Ombudsman Program Guidance Schools Portal Students Portal	N/A
eNetwork Dispatcher	SU22E20	HP-UX 11i	ITA Perf	4.0.2.25	FAFSA FAFSA Demo PIN Portals	Cisco CSS
	SU22E24	HP-UX 11i	ITA Perf	4.0.2.25	FAFSA FAFSA Demo PIN Portals	Cisco CSS
Interwoven	SU35E1	Sun Solaris 2.8	Dev Test ITA Stage	TeamSite - 5.0.1 OpenDeploy - 5.0.1 DataDeploy - 4.5	FP Portal FSANet IFAP Ombudsman Program Guidance Schools Portal Students Portal	Fsasvs- mrd8 Fsasvs- mrd9
	Fsasvs- mrd8	Sun Solaris 2.8	Dev Test ITA Stage	TeamSite - 5.5.2 OpenDeploy - 5.6 DataDeploy - 5.6	FP Portal FSANet IFAP Ombudsman Program Guidance Schools Portal Students Portal	N/A
	Fsasvs- mrd9	Sun Solaris 2.8	Dev Test ITA Stage	TeamSite - 5.5.2 OpenDeploy - 5.6 DataDeploy - 5.6	FP Portal FSANet IFAP Ombudsman Program Guidance Schools Portal Students Portal	N/A
Microstrategy	SFANT0 01	NT 4.0	Dev Test	7.2.3	CM FP Data Mart eCampus-Based	N/A
Informatica	SU35E5	Sun Solaris 2.8	Dev Test	5.1.2	CM FP Data Mart eCampus-Based	RP5470-6
	RP5470-6	HP-UX 11i	Dev	5.1.2	CM	N/A



Software	Server Name	O/S	Env	Current Version	Applications	Post Refresh
			Test		FP Data Mart eCampus-Based	

### 3.3 ITA Products

#### 3.3.1 IBM HTTP Server (IHS)

IBM's web serving offering is based upon the Apache web server. The implementation that IBM has custom tailored allows for tight integration into the IBM WebSphere applications and other IBM products. It allows for the serving of multiple web documents, while providing necessary application interaction.

#### 3.3.2 IBM WebSphere Application Server (WAS)

The IBM WebSphere Application Server manages, deploys, programs, and integrates development like IBM's WebSphere. It makes use of Java technology compatibility for most web application offerings. One of its most useful features is that it is a highly configurable solution for a small offering or a large enterprise. It is the middleware between the HTTP servers and the databases.

#### 3.3.3 Autonomy

Through the use of Autonomy the entire Internet offering is easily parsed into a searchable resource. Users can seamlessly search for content throughout enterprise offered information. It does this through its connectors that combine varying forms of resources (databases, HTML pages, e-mails, etc.) into one easily accessible resource.

#### 3.3.4 Network Dispatcher

This IBM product is an integrated portion of the IBM Edge Server. Network Dispatcher provides load balancing. It administers the resource balancing between clusters of web servers and application servers. It is one of many components within the ITA network architecture that allows for high availability.

#### 3.3.5 Interwoven TeamSite

As a product of the Interwoven Platform, TeamSite enables content contribution, collaboration, and management across the enterprise. It provides the necessary components to streamline business processes, integrate currently used productivity tools, and accelerate all eBusiness initiatives.

#### 3.3.6 Microstrategy

This product provides reporting, analysis, and information delivery capabilities.

#### 3.3.7 Informatica

Informatica is a mainframe data tool that converts mainframe data for Oracle so reports can be generated by MicroStrategy.



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## 4 Infrastructure Updates and Enhancements

### 4.1 Updates and Enhancements Matrix

The updates and enhancements log included in Section 4.2 of this document provide detailed information for production, development, testing, and staging environment issues addressed with updates or enhancements between January 16, 2003 and February 13, 2004. The matrix is organized chronologically by application name.

This matrix consists of the following categories:

- **Date Opened:** Provides the date the issue was opened.
- **Application:** Denotes the name of the application.
- **Description:** Offers a description of the issue.
- **Environment:** Lists the environment(s) in which the issue occurred (Production, Development, Test, Staging, Performance).
- **Resolution:** Summarizes steps taken by the ITA team to resolve an issue.
- **Priority:** Provides the issue's level of priority ranging.
- **Issue Status:** Indicates the issue's status (open, closed).
- **Issue Resolution/Target Date:** Provides the issue's resolution date or target date.
- **Approximate Time Spent:** The number of hours spent resolving the issue.



4.2 Production Updates and Enhancements Log

Date Opened	Project	Env	Description	Resolution	Priority	State	Issue Resolution/ Target Date	Approx. Time Spent (hours)
1/26/2004	IFAP	Prod.	File tbllist104.htm under the includes directory in the IFAP jsp branch failed to deploy.	This issue has been resolved.	3-Normal	Closed	2/6/2004	5.0
2/10/2004	IFAP	Prod.	When I perform Edition Deployment I get the following screen: ***** Reading OpenDeploy Previous Deployment Data...DONE. Numb...	Files were successfully deployed. We are investigating why the notification system has reported that deployment had failed.	1-Emergency	Immediate problem resolved.	2/10/2004	4.0
1/28/2004	Students Portal	Prod.	Please remove the following files from E9 and E13 Students>English>Headlines> preapp_worksheet.jsp dlsnotice.jsp counnotice.js...	Please open an ECM in the VDCMP database to perform these deletions - ITA cannot remove files from production.	3-Normal	Rejected	2/6/2004	0.0



4.3 Pre-Production Updates and Enhancements Log

Date Opened	Project	Env	Description	Resolution	Priority	State	Issue Resolution/ Target Date	Approx. Time Spent (hours)
1/16/2004	Schools Portal	Test	I have performed a couple times to restart the WAS on the Schools Portal Test site without success. Need ITA's assistant.	WAS was throwing errors because it could not find the "struts-config" DTD file. It appears the Schools Portal production code was loaded into the Test environment. As a result, the code is looking for the DTD file in a location where that file does not exist in the Test environment. Since WAS could not load the DTD file, the Schools Portal application server cannot start. Once the proper adjustments are made and the reference updated appropriately, the Schools Portal application server should start.	2-High	Closed	2/6/2004	3.0
1/20/2004	IFAP	Other	User jhchak cannot do Edition Deployment under IFAP's JSP branch in Interwoven Teamsite.	Restarted iwod service on su35e5. Following restart, deployment was successful.	1-Emergency	Closed	1/20/2004	3.0
1/20/2004	IFAP	Other	It was working this morning but somehow INDUS does not able to perform the Edition deployment under ifap branch anymore. See one...	Submitted ECM to restart OpenDeploy receivers on su35e9 and su35e13. Receivers restarted as requested. Deleted configuration file and log file generated by failed deployment. Confirmed that deployment of this edition was now successful.	2-High	Closed	1/21/2004	3.0



Date Opened	Project	Env	Description	Resolution	Priority	State	Issue Resolution/Target Date	Approx. Time Spent (hours)
1/20/2004	IFAP	Other	It was working hours ago but somehow INDUS does not able to perform opendeploy via ifap_jsp script. see error log below: OpenDe...	Submitted ECM to restart OpenDeploy receivers on su35e9 and su35e13. Receivers restarted as requested. Deleted configuration file and log file generated by failed deployment. Confirmed that deployment of this edition was now successful.	2-High	Closed	1/21/2004	3.0
1/22/2004	FAFSA	Dev.	All requests we are getting the 'Internal Server Error' page.	servers restarted.	1-Emergency	Closed	2/6/2004	1.0
1/23/2004	FAFSA	Stage	Current the EAI conf is pointed to Perf test MF and the PIN DB is pointed to test. This makes our test records out of sync and prevents us from testing on this site. Please update the ITA PIN DB to point to perf test PIN DB.	Updated URL for FOTWPin datasource to jdbc:oracle:thin:@4.20.14.15:1662:EACTST	3-Normal	Closed	2/6/2004	1.0
1/28/2004	IFAP	Other	I received the error below: Reading OpenDeploy Previous Deployment Data...DONE. Number of Deployments : 1 Deployment for Branc...	Restarted OpenDeploy base station, and successfully deployed the designated edition into production. This problem appears to be caused by insufficient permissions on the depoyment configuration files. We will follow up to this issue by modifying the edition deployment script, so that configuration files are group writable.	3-Normal	Closed	2/6/2004	1.0



Date Opened	Project	Env	Description	Resolution	Priority	State	Issue Resolution/ Target Date	Approx. Time Spent (hours)
2/4/2004	Portals	Other	Please add Oneyda Lopez (unix id: indoxl; email: olopez@induscorp.com) to the following branches in Teamsite: ifap (administrat...	changes have been made as requested.	2-High	Closed	2/6/2004	1.0
2/5/2004	All	Dev.	This is a Test of the PPS Pagers	Test complete.	3-Normal	Closed	2/6/2004	1.0
2/10/2004	FAFSA	Dev.	We added a new servlet PINUtilServlet to FAFSA's UtilityApp. The updated UitlityApp.ear file has been deployed to HPA2 and it's ready to update the Web plugin.	1. regenerated the plug-in in hpa2, 2. copied it to hpl3 (4.20.14.56), and 3. restarted IHS.	3-Normal	Closed	2/17/2004	1.0
2/10/2004	FAFSA	Perf. Test	Deploy the latest FAFSA EAR	Pull FOTWApp.ear from hpa2 @/www/dev50/fotw/releases/current Deployed it using deploy_fafsa.sh /www/fotw/ears/FOTWApp.ear.	3-Normal	Closed	2/17/2004	1.0





4.4 Outstanding Issues

Date Opened	Project	Env	Description	Resolution	Priorit y	State	Issue Resolution/ Target Date	Approx. Time Spent (hours)
1/28/2004	eZ-Audit	Test	eZ-Audit needs 3 test enviroments created.	ITA is working with the new PPS ITA team to create the new environments	3-Norma 1	Submitted	2/17/2004	4.0
2/6/2004	ITA	Dev.	The Access and Identity Management Tools Analysis project needs use of the ITA development environment for a prototype of application security tools. The following will need to be installed in the ITA development environment for the prototype: instance of Web Access Control Tool, instance of Identity Management tool, development instance of FSA ezAudit application. The prototype and testing will occur from 03/16/04 until 05/07/04.	This item is a placeholder for future work that will be performed by the new ITA team.	3-Norma 1	Submitted	3/15/2004	0.0



Total Prod. Issues								Total Prod. Hours
3								9.0

Total Pre-Prod. Issues								Total Pre-Prod. Hours
11								19.0



## 5 Reusable Common Services (RCS)

The RCS provides common technical and business services that are required for virtually every web-based application within FSA. These services can be built once and reused across all the applications. ITA Release 4.0 is maintaining the existing RCS library. The following list details updates and information regarding the RCS components maintained in Release 4.0:

- Updated the RCS Jar files in the FAFSA production environment with the latest RCS Jars.
- The RCS Framework now consists of the following jar files:

StartupRcs.jar
rcs.email.5.0.jar
rcs.exception.5.0.jar
rcs.logging.5.0.jar
rcs.persistence.5.0.jar
rcs.search.5.0.jar

- In addition, the RCS jar files utilize the following third party Jar files:

commons-httpclient-2.0-beta1.jar
commons-logging-api.jar
commons-logging.jar
jakarta-oro-2.0.5.jar
protomatter-1.1.8.jar



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## 6 Maintenance Services

### 6.1 Availability

The ITA team offers continuous secondary production support (tier two) to CSC in their maintenance escalation process of resolving production issues. ITA provides support twenty-four hours a day, seven days a week. This level of support helps ITA ensure a high level of service as outlined in the Service Level Agreements (SLAs) with each application team. The schedules & team used to provide this support are detailed in Appendix B & C.

Target Availability: 100% (24/7 production support)

Actual Availability: The IT Services Report is published on a daily basis. Actual Availability is detailed in these individual reports. However, there is no comprehensive report with numbers on Availability for multiple weeks. The details of these reports can be obtained as issued by Ernest Sheffield at [Lin.Sheffield@ed.gov](mailto:Lin.Sheffield@ed.gov).

### 6.2 Pager Support

The ITA team provides non-business hour support through pager support. The ITA team has escalation procedures to ensure that support for production issues is readily available. During business hours the ITA team answers an average of 5 calls per day. During non-business hours the ITA team answers 4 pages per week. Additionally, the ITA team has been participating in weekly production issue status calls. The incidents (production issues) that have been captured thus far include those that are logged in the change request tool that are described in Section 4.2. An additional table of historical data is provided in Appendix D.



## 7 Performance Tests

The ITA team performed the following Performance Tests on the FAFSA on the Web application during the January 16, 2004 – February 13, 2004 time period:

Date	Test Performed	Results
2/9/2004 - 2/13/2004	Creating new scripts that will enter error in application - This may help to recreate the production problem.	The new scripts are: 1) Login script-no pin 2) Mistype 3) EOE error 4) Worksheet 5) FAFSA 0304 Pin API Login and Worksheet scripts are completed. Other scripts are on hold since we may not have an opportunity to run this test (based on the decision that was made 2/12 Tiger team meeting).
1/12/2004 - 1/21/2004	<b>Performance Test 1:</b> Fill Out a FAFSA (973 Users), Student Access (9 users), Request App (18 users). Fill out a FAFSA was lengthened to run for 45 minutes instead of the usual 20 minutes. Each of the other scripts was reduced to run much shorter. <b>Performance Test 2:</b> Re-ran performance test one, but added in a short Fill Out a FAFSA script which created a session and exited without logging out Noise generator was added to create many short lived objects <b>Performance Test 3:</b> Re-ran performance test from 1/19 with short script from Performance Test 2.	Able to generate the full garbage collection but this did not resemble production.
2/6/2004	Investigate the rapid Garbage Collection in the production environment. Run the same mixture of business processes as seen in the production environment with 1000 users: 42% Fillout a FAFSA application 6% Corrections 25% Request Application Status 15% Student Access 12% Renewal	Test was run for 1 hour 30 minutes; CPS folks asked to stop the test because CPU on the mainframe was utilized 100%.



Date	Test Performed	Results
2/5/2004	Investigate the rapid Garbage Collection in the production environment. Run the same mixture of business processes as seen in the production environment with 1000 users:42% Fillout a FAFSA application6% Corrections25% Request Application Status15% Student Access12% RenewalRun this test for almost 6 hours. Integrated Wily (enterprise server) in the performance test env for this test.	Saw only scavenger GC during this test.Fill the new area faster in perf test, did not overrun the scavenger region, the objects are gc'd quicker, and memory is released. This supports the theory that larger memory allocation in production is the reason gc heap usage is much greater in production.Average Allocation = 12025 bytes with an average tenuring of 31.6
1/27/2004	Performed PDF x 3 test	Saw average larger number of 70K+ objects. However, this did not help to recreated the production issue.
1/23/2004	Run several tests to confirm 1.4 gb heap size does not have any performance issues in our environment.	1.4 GB heap size is supported in the FAFSA env. A request was made to change the heap size to 1.4 GB in production.
1/23/2004	Performance tested to make sure a box can support 4 clones.	An application server 8X750 Mhz cpu and 16 GB memory can support 4 FAFSA clones.
1/8/2004	Investigate the rapid Garbage Collection in the production environment Performance Test with lowered survivor size. Survivor size reduced to 1/100 of new Test was run with 1500 users for 1 hour January 8th.	Saw 6 Full GC each taking approx. 3 seconds. Survivor is being overrun into the old generation
1/7/2004	Investigate the rapid Garbage Collection in the production environment Performance Test with default heap parameters on January 7th and January 8th. Heap is defaulted to 1/3 new, 2/3 old Survivor areas are each 1/12 of new. There are 2 survivor areas Perf test run with 1500 users for more than an hour.	Gathered the size and tenuring information during GC's. Full GC was not seen during the test.



## 8 Transition Activities

The ITA team performed the following transition activities during the January 16, 2003 – February 13, 2004 time period:

Date	Transition Activities	From	To
1/20/2004	Weekly Transition Status Meeting: Discussed initial transition inventory and high level transition work plan	Roshani Bhatt, Matt Portolese, William Brownlow, Rupal Mehta, Michael Spiegel	Tim Gonzalez, Bob Wehrle
1/26/2004	<ul style="list-style-type: none"> <li>-Interwoven Upgrade</li> <li>-Failover architecture</li> <li>-Backing store configuration on SAN</li> <li>-Use of symbolic links for TeamSite configuration files</li> <li>-Current issue with OpenDeploy on refresh servers (filenames with whitespaces)</li> <li>-Next steps for upgrade (communication, content migration, outstanding issue resolution)</li> <li>-Google Search Appliance</li> <li>-Documentation provided on-line through Appliance Emailed:</li> <li>-Copy of open IW ticket</li> <li>-IP Address and URLs of IW servers</li> <li>-Paths to custom deployment IW scripts</li> <li>-Google Starter Kit</li> <li>-IP address and login for Google Search Appliance</li> <li>-Added Andy Jea to TeamSite access as author, editor, and admin (already existed).</li> <li>-Added Andy Jea and Bing Yi to ITA ClearQuest notification</li> <li>-Added Andy Jea and Bing Yi to IW Edition Deployment notification</li> </ul>	Rupal Mehta, Michael Spiegel	Andy Jea
1/27/2004	Weekly Transition Status Meeting: Discussed progress to date	Roshani Bhatt, Matt Portolese	Tim Gonzalez
1/28/2004	<ul style="list-style-type: none"> <li>-Discussed Interwoven and Google migration schedules on an application by application basis.</li> <li>-Provided migration workplan that is discussed during weekly development ECM call on Tuesdays at 10 AM.</li> <li>-Discussed Autonomy Capacity Review meetings that are upcoming – Andy will attend.</li> <li>-Explained different methods for deploying content, editions, and data records from TeamSite to IHS, WAS, and databases. Demonstrated scripts and explained configurations.</li> <li>-Explained process for installing patches to Interwoven products, as well as server reboot schedule conducted by CSC.</li> <li>-Walked through the resolution of a routine Interwoven issue submitted through ClearQuest.</li> <li>-Examined Interwoven log files to determine error,</li> </ul>	Rupal Mehta, Michael Spiegel	Andy Jea



	<p>made appropriate changes, and tested solution. Walked through process of assigning a ClearQuest ticket, filling out ClearQuest information, and resolving a ticket.</p> <ul style="list-style-type: none"> <li>-Explained Google Search Appliance configuration and walked through different features using IFAP demo.</li> <li>-Also demonstrated changes that can be made through XSLT used to display Google's XML results.</li> </ul>		
1/28/2004	<ul style="list-style-type: none"> <li>- Discussed WebSphere 5.0 migration schedules on an application by application basis.</li> <li>- Discussed current ITA Architecture &amp; Logical Diagrams. Walked through the diagrams, explaining the architecture, nomenclature &amp; historical background relating to the applications.</li> <li>- Answered general architecture questions related to both the WAS 3.5 &amp; WAS 5.0 pre-production environments</li> <li>- Provided migration work plan that is discussed during weekly development ECM call on Tuesdays at 10 AM.</li> <li>- Discussed WAS 5.0 migration plans for development, test &amp; production.</li> <li>- Explained the physical stage, 'stg' stage &amp; 'ita' environments as they relate in pre-production.</li> </ul>	William Brownlow	Lin Wang, Chuck Chang
1/30/2004	<ul style="list-style-type: none"> <li>-Discussed process for Interwoven content migration using 'iwconvert' tool. Identified location for log files of conversions carried out during September – December 2003. These log files will help to do the final migration before the upgrade goes live. Recommended that Andy read about the 'iwconvert' utility in TeamSite Command Line Tools manual.</li> <li>-Walked through two types of content deployment scripts that are custom built in Interwoven. Also identified configuration files. <ul style="list-style-type: none"> <li>-File-&gt; Deploy: This is used for pushing folders from either a workarea or the staging area to dev, test, prod. Static content can be pushed to production from here, but any changes to business logic in JSPs can only be pushed to dev/tst environments. In order to push business logic changes in JSPs to production, the Edition -&gt; Deploy procedure must be used.</li> <li>-Edition -&gt; Deploy: This is used primarily for pushing JSP application code out to the production servers. This script allows for email notification of application teams, business owners, CSC, and ITA when new code is introduced into the environment.</li> </ul> </li> <li>-Explained types of IW changes for which ITA is responsible. Specifically discussed workflows, where ITA is responsible for configuration that allows a team</li> </ul>	Rupal Mehta, Michael Spiegel	Andy Jea





	<p>to access a particular workflow, but the individual application teams are responsible for writing the workflow itself.</p> <p>-Walked through the ClearQuest tool again, by finding a submitted request, assigning the request, modifying the ticket to ask submitter for more information, and showing how to close a request.</p> <p>-Walked through the Google admin console, specifically how to configure Google to crawl a particular application, and how to use regular expressions to limit the type of content that is crawled. Configured a test case where Google only crawls HTML documents for a particular website, ignoring all other file types.</p>		
2/2/2004	<p>-Walked Andy through the installation of Patch 1417 on fsasvsmrd09 for TeamSite upgrade. Patch cleared up initialization errors, but branches are still unavailable. Contacted Interwoven support for further diagnostics.</p> <p>-Ran TeamSite diagnostics and took necessary screen shots for IW support to do further troubleshooting.</p> <p>-Discussed IW permissions change request that came in on 2/2.</p> <p>-Asked Andy to read through the code for IW deployment scripts and configurations so we can discuss any questions he may have.</p> <p>-Asked Andy to confirm that he has applied for root access on Interwoven servers.</p>	Rupal Mehta, Michael Spiegel	Andy Jea
2/3/2004	Weekly Transition Status Meeting: Discussed transition procedures, meetings, overview of transition and progress to date	Roshani Bhatt, Matt Portolese	Tim Gonzalez, Bob Wehrle
2/4/2004	<p>-Walked through process of adding email addresses to ClearQuest ITA database notification.</p> <p>-Completed ITA801: Assigned task in ClearQuest, and implemented configuration changes necessary to configure TeamSite deployments for IFAP, Schools, Students, and FP Portal developers.</p> <p>-Completed ITA812: Added user to TeamSite as administrator, and configured group permissions as requested.</p> <p>-Discussed script that Google will use to spider documents that was previously indexed by Autonomy's Autoindexer. This script is necessary because documented indexed by Autoindexer aren't linked to anywhere else within websites, so an external script generated based on contents of specific directories is required.</p>	Rupal Mehta, Michael Spiegel	Andy Jea, Chi-yen Yang
2/5/2005	Delivered ITA Transition Documentation CD		
2/5/2004	-Reinstalled TeamSite and Templating to resolve	Rupal Mehta,	Andy Jea,



– 2/6/2004	<p>application issues.</p> <ul style="list-style-type: none"> <li>-Installed TeamSite service pack 2, Templating service pack 2.</li> <li>-Ran "iwconvert" utility to demonstrate how to convert content from TS 5.0.1 to TS 5.5.2</li> <li>-Ran "iwidmap" utility to demonstrate how to remap user ids after content is converted</li> <li>-Discussed Autonomy architecture and current open issue: Autoindexer unable to process all jobs on HP. - Discussed workarounds.</li> </ul>	Michael Spiegel	Chi-yen Yang
2/6/2004	<ul style="list-style-type: none"> <li>-Startup Scripts</li> <li>-Data Sources</li> <li>-Coordination with CSC</li> <li>-Database requests</li> <li>-DNS requests</li> <li>-User ID requests</li> <li>-Group ID requests</li> <li>-Cluster IP Addresses for Production</li> <li>-Environment Creation</li> <li>-Pager Support Procedures</li> </ul>	William Brownlow	Lin Wang, Chuck Chang
2/9/2004	<ul style="list-style-type: none"> <li>-Data Source Walkthrough</li> <li>-ITA CQ Database</li> <li>-Close &amp; resolving issues</li> <li>-Contact List</li> <li>-We walked through the contact list &amp; the important touchpoints between the ITA team, FSA, CSC &amp; Operations partners</li> <li>-Email</li> <li>-Coordination with DoED</li> <li>-Issues</li> <li>-Setup</li> </ul>	William Brownlow	Lin Wang, Chuck Chang
2/10/2004	Weekly Transition Status Meeting: Discussed percentage completion, overview of workplan and on-going transition activities	Roshani Bhatt, Matt Portolese	Tim Gonzalez, Bob Wehrle, Willie Huo
2/11/2004	<ul style="list-style-type: none"> <li>-Demonstration of Google starter kit, which is a dummy FSA application that uses the Google search appliance. The demonstration was a step-by-step account of setting up an FSA application in a WSAD environment.</li> <li>-Discussed configuration of RCS libraries, modifying web descriptor file, adding Search Taglib descriptor.</li> <li>-Discussed the XSLT customization process. These steps will be used by the application teams in the Autonomy to Google migration.</li> </ul>	Michael Spiegel	Andy Jea, Chi-yen Yang, Bing Yi, Somendra De
2/13/2004	WebSphere 5.0 Development, Test, Staging environment creation	William Brownlow	Lin Wang, Chuck Chang



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2/13/2004	<ul style="list-style-type: none"><li>-Discussed current issues with TeamSite upgrade.</li><li>-Walked through the next steps to continue testing with the application teams.</li></ul>	Rupal Mehta, Michael Spiegel	Andy Jea, Chi-yen Yang
	Discussed Autonomy configuration.		